

DETAILED ACTION

Priority

This application 09966522, filed 09/28/2001 and having 2 RCE-type filings therein is a continuation of 09194099, filed 11/20/1998 ,now U.S. Patent #6420183 and having 2 RCE-type filings therein. Application 09194099 is a national stage entry of PCT/EP97/02662 , International Filing Date: 05/23/1997 and claims foreign priority to 19621312.6 , filed 05/28/1996.

The effective filing date is 5/28/1996.

Claim Objections

The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claims 19-24 and 44 have been renumbered 18-23, and 43.

Claims 1-17, 24-42 were cancelled.

Amendment Entry & Claims Status

The amendment filed on February 22, 2011 has been acknowledged and entered.

Claims 19-24, 44 renumbered as 18-23 and 43 are pending and being examined.

Claims 1-17, 24-42 were cancelled.

Withdrawn Rejection(s)

All the double patenting rejections the previous office action are withdrawn herein.

New Grounds of Rejection

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 44, 19, 20 renumbered as 43, 18, 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Alburger (US Patent 3,506,827).

Alburger teaches a combination comprising a fluorescent dye and a masking dye wherein said masking dye is present in a solution at an amount sufficient to reduce non-specific background light emitted from said solution by at least 10% compared to the non-specific background light emitted from said solution in the absence of said masking dye. (see col. 1, lines 25-46; col. 2, lines 30-44, 54-62; col. 5, lines 50-63; col. 8, lines 10-25).

Regarding the fluorescent dye is permeant to the membrane of the biological cell and the masking dye is substantially impermeant to the membrane of the biological cell and has an adsorption spectrum that overlaps with the emission and/or excitation spectrum of said fluorescent dye, or said masking dye does not specifically bind to said membrane of the biological cell, these are functional limitations of the combination and

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since Alburger teaches the same combination, such combination in Alburger would be able to perform the same functions.

Regarding claims 19 and 20 renumbered as 18 and 19, Alburger teaches that the background light is reduced by at least 50% (see col. 5, lines 50-63; col. 8, lines 10-25).

Regarding claim 22, since the fluorescent dye in Alburger is the same as the fluorescent dye of the present invention, it should be able to detect a voltage across the membrane of the biological cell.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained through the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Alburger (US Patent 3,506,827).

Alburger has been discussed above to teach that the amount of the fluorescent dye corresponds to the amount of the nonspecific background being reduced.

However, Alburger fails to teach the non-specific background light from said solution is reduced by at least 70% compared to the non-specific background light emitted from said solution in the absence of said masking dye.

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to improve the percentage of reduced non-specific background light to 70%, since it has been held that discovering an optimum value of a result

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effective variable involves only routine skill in the art. In re Boesch, 617 f. 2d 272, 205 USPQ 215 (CCPA 1980).

Response to Arguments

Applicant's arguments with respect to claims 19-23 and 44 renumbered as have been considered but are moot in view of the new ground(s) of rejection.

Applicants have filed a Terminal disclaimer on February 22, 2011 to overcome the double patenting rejection. The Terminal disclaimer has been reviewed and approved. Therefore, rejection under double patenting in the previous office action is withdrawn herein.

However, after an update search, a new art has been found applicable to some of the pending claims. (see rejection above).

Allowable Subject Matter

Claims 23, 24 renumbered as 22, 23 are objected to as being dependent upon a rejected base claim 44 renumbered as 43, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to PENSEE DO whose telephone number is (571)272-0819. The examiner can normally be reached on Monday-Friday, 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Shibuya can be reached on 571-272-0806. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Pensee T. Do/
Examiner, Art Unit 1641
/Jacob Cheu/
Primary Examiner, Art Unit 1641/Jacob Cheu/